

REMARKS

1. Applicant notes the renumbering of Claims 35-43 as 34.42. Applicant apologizes for the numbering error.
2. Applicant hereby offers to surrender the original letters patent, and will tender the original letters patent prior to reissue.
3. Applicant notes the omission of the inventor's address. Applicant's residential address is: 1112 Granada Avenue, Odessa, Texas 79763. Applicant will submit a substitute declaration with the address included if desired or requested by the Examiner.
4. Applicant notes that the preliminary amendment of 23 September 2002 does not comply with 37 CFR 1.173(b). As can best be determined, the preliminary amendment is defective in that the claims are not underlined. The Examiner required a supplemental paper which correctly amends the reissue application. Applicant submits the amendments proposed by the preliminary amendment in the present amendment which corrects the noted defects.
5. The Examiner rejected Claims 35 and 37 as failing to meet 35 USC Section 112, second paragraph, as to matters of form. Applicant has carefully reviewed Claim 35 but is unable to identify the defects pointed out by the Examiner. More particularly, Applicant could not find "said a" in Claim 35. Applicant has identified and corrected the other two defects identified by the Examiner. Both of these defects were present in Claim 37, and they have been corrected by amendment.

6. The Examiner rejected the pending claims as being anticipated or rendered obvious based on the following prior art references: (1) Humason '045; (2) Morris et al. '908; and (3) Sonderberg '167. Each of these prior art references will be reviewed and compared to the pending claims.

7. HUMASON '045: Humason '045 differs significantly from the present invention. It is **not** used for treating a well with chemicals. Instead it is used for **lifting wellbore fluids**. See Column 1, lines 12-20 of Humason '045, with emphasis supplied:

"A further object is to provide a well flowing device in which the elevation of fluid under natural pressure may be supplemented by gas air lift operations.

Still another object is to provide a device of the character described which may be utilized to control the flow of wells under natural pressure and which may thereafter be utilized for production of the well by pumping"

Figure 1 depicts the upper portion of the tool. Figure 2 depicts the middle portion of the tool. Figure 3 depicts the lower portion of the tool. These figures must be examined together to understand the operation of the tool. Figure 4 shows all three portions connected together, but is very difficult to see because the drawing is so crowded.

Figures 5, 6, and 7 depict the operation of the tool as a "pumping unit."

Figures 8, 9, 10 and 11 depict a modified version of the tool. It is clear that the tool of Humason is disposed within a "flow tubing 1," which "extends to

the surface and conducts liquid of the well to the surface." See Column 1, lines 52-55. The tool 11 carries at its lower end a valve seat 12. See Figure 3. It has "longitudinal openings 12 through which fluid may pass upwardly into the working barrel 4." See Column 2, lines 6-9. A nipple 14 defines a valve seat "upon which a gravity activated valve member 17 is positioned to permit upward movement of fluid into the device." See Column 2, lines 9-14. The tool may serve as a bottom hole choke, and this version is described at Column 2, lines 19-36. At its upper end, the tool has a check valve 27 (Figure 1). The check valve 27 is connected to the operating rod 25, which is presumably a sucker rod. The check valve 27 mates against a downwardly facing valve seat 36 and is biased upward by compressing spring 38. See Column 2, lines 36-44. The operation of the check valve is described at Column 2, lines 45-53:

"This construction permits the flow of fluid downwardly under pressure through the operating rod. Such fluid passes downwardly into the connector body 28, wherein it passes through diagonally upward openings 40 in the connector body into the annular space between operating rod 25 and the tubing string 2. With this construction fluid lift may be utilized for lifting liquid upwardly from the level of the connector body."

In other words, fluid is pumped from a surface location down the sucker rod string to the tool. This fluid is pushed through the check valve 27 and down into the tool. This fluid then exits the tool through openings 40 into the annular region between the sucker rod and the production tubing.

Beneath this portion of the tool is another valve: plunger like valve 48. It is slidable "so that liquid rising within the bore 47 will displace the valve

upwardly whereby liquid may be discharged through the openings 46." See Column 3, lines 3-7. A flanged ring 52 provides a valve seat for the plunge like valve 48 (also referred to as a "cup shaped" valve 48). See Column 2, line 50. Wellbore fluid flows upward through plunger like valve 48 while fluid from the surface passes downward through check valve 27.

Another valve (valve member 32) is located beneath these two valves. See Figures 3 and 7. A compression spring 76 biases a valve seat 12 upward to engage valve member 32. See Column 3, lines 62-73.

The operation of the tool is depicted in Figures 5, 6, and 7 and is described at Column 3, line 74 through Column 4, line 8, as follows:

"Figs. 5, 6 and 7 show the relative positions of the parts of the device just described when the inner assembly has been rotated to release the interlock body 30 from the nipple 7. When the parts are in this position it seems obvious that this inner assembly 26 may be reciprocated through the reciprocation of rod 25 so that the device will operate as a reciprocating pump, the flow of liquid taking the path indicated by the arrows."

The operation is more clearly described at Column 5, lines 11-17, as follows:

"If the pressure in the well falls below a point at which the natural flow of the well ceases, further flow may be induced by introduction of fluid under pressure through the operating string 25 whereby the bottom well pressure is supplemented by a gas air lift and production of the well continues."

Figures 8-10 depict an alternative embodiment of the tool which is described at Column 5, lines 29-36 as follows:

"The embodiment shown in Figs. 8 to 10 operates in a manner similar to that just described with the exception that fluid moving upwardly in the inner assembly 25 is not discharged outwardly therefrom into the tubing string. Instead the well liquid flows upwardly to the cage valve 32 and thence upwardly through the operating string 88 which thus serves as a flow line."

Several important points can be made about Humason '045:

(1) There is no mention whatsoever about the use of the tool to administer or introduce a "well treatment fluid" into the wellbore.

(2) The valves collectively do not permit the flow of fluid or gas from the sucker rod string into the surrounding wellbore, so Humason can not be used as a well treatment tool.

(3) Humason is solely concerned with the assisted or "artificial" lifts of wellbore fluids. The assist is provided by gas applied to the tool through the sucker rod string.

(4) Only one alternative embodiment is discussed in Humason, which is the use of the sucker rod string as a "flow line." The alternative use suggested by this embodiment does not teach or suggest further uses.

(5) Both embodiments of Humason are completely inconsistent with the present invention which is concerned with solving the problem of treating a well to overcome the problems associated with the reduction in production due to the build up of foreign matter such as paraffin.

8. MORRIS ET AL. '908: Morris '908 is directed to a tool which is carried on a coiled tubing string to a subsurface wellbore location. The coiled tubing engages a valve. High pressure fluid carried by the coiled tubing string acts on the valve and opens the valve. This allows fluid to be ejected by the coiled tubing string into the wellbore. See Column 1, lines 40-52.

Figure 2 is a cross-section view of the tool. The injector tool 18 has a body 20 with a fluid passageway 24 for receiving fluid from the coiled tubing. Injector tool 18 carries a piston valve 28 with seat 30 and valve element 32. A gas charging chamber 36 acts on the backside of the piston 34 and it is characterized as a "biasing means" and operates as follows; as stated at Column 3, lines 25-27:

"Biasing means are provided acting on the valve element 32 in a direction to yieldably urge the valve element 32 on to the seat 30 and close the valve 28."

This "biasing means" is supplemented by spring 40.

Collectively, the gas in the gas chamber and the spring operate to accomplishing the following, as stated at Column 3, lines 37-48:

"The purpose of the biasing force is to provide a force sufficient to at least balance the hydrostatic force of the injection fluid in

the tubing 16. This allows the valve 28 to be controlled by the pressure exerted at the well surface to the fluid in the coil tubing 16 for more accurately controlling the amount of fluid injected against the wall interior 14. Therefore, depending upon the depth in the well at which the injector 18 is to be initiated (sic.), the biasing force can be easily set by the pressure charge of the nitrogen in the chamber 36 and/or the strength of the spring 40."

The injector tool 18 carries outlets 26 to permit outward flow of fluid. Furthermore, it carries a turbine impeller 44 with blades 48 that are utilized to dispense the fluid which is pumped down from the surface through the coiled tubing.

Morris et al. does teach the use of treatment fluids such as corrosion inhibitors, starting at Column 1, lines 19-23 as follows:

"For example, a well conduit may be washed, coated with corrosion inhibitors, coated with a protective film for increasing the life of the well conduit instead of replacing it, removing paraffin with chemicals, perform acid treatments and many other operations."

However, several important distinctions exist, including:

(1) Morris teaches the "spraying" of treatment fluid in "a single" operation as opposed to "a continuous treatment" over time which is obtained with the present invention.

(2) Morris does not teach a tool or system which can normally be permanently installed. It appears that each treatment is a separate operation.

(3) Morris teaches a tool which is useful only for high volume treatments, not low volume treatments like the present invention.

(4) Morris relies on a gas chamber and piston to bias the ball valve closed; in contrast, in the present invention only a mechanical bias is utilized, which should be ore reliable over a long interval of operation.

9. SODERBERG '167: The Examiner relies on Soderberg '167 only for the following proposition:

"It would have been considered obvious to one of ordinary skill in the art to modify Morris et al. to include a treatment fluid supply tank, a treatment fluid line connecting to the supply tank, a pump coupled to the treatment fluid line, intermittently supplying the treatment fluid and separation/storage equipment for recovering the wellbore fluids as taught by Sonderberg since such equipment and steps are conventionally used in the recovery of oil"

Accordingly, the Sonderberg '167 need not be discussed in detail.

However, the Examiners combination of Morris et al. '908 and Sonderberg '167 suggested by the Examiner is traversed, since:

- (1) Morris et al. is a tool for a temporary treatment of a well.
- (2) The tool and coiled tubing of Morris et al. is NOT utilized for the production of oil.

- (3) In other words, Morris et al. is for treatment, not production; in contrast, the present invention is for treatment during production.

In the "Background of the Invention," of the present application, the Sonderberg '167 reference is discussed and expressly distinguished from the present invention. Sonderberg '167 requires that fluid be passed down the production tubing string. The problem with the approach is summarized in the present application at Column 3, lines 5-8, as follows:

"This of course requires that fluid production from the well be stopped during the time that solvents or other fluids are being forced down the production tubing string."

10. Each of the Examiner's rejections will now be considered and traversed.

11. The Examiner rejected Claims 1-5, 7-11, 21-28 under 35 USC Section 102(b) as being anticipated by Humason. The independent claims (1, 7, 21, 25) will be discussed first.

Claim 1 specifically requires a cylindrical body "for distributing well treatment fluid from the sucker rod string and into the production tubing string." Humason does not teach or suggest in any way whatsoever the application of the "treatment fluid." Instead, Humason teaches the use of the sucker rod string to apply pressurized gas for lifting production from the well.

Independent Claims 21 and 25 similarly specifically require the cylindrical body "for distributing well treatment fluid from the treatment fluid string into the production tube string." Humason does not remotely teach or suggest

the use of a conduit within a production tubing string to apply well treatment fluid.

Claim 1 specifically requires that the cylindrical body have an "axial fluid extraverse passage" at one upper end for accepting treatment fluid and an "opposite solid lower end." Claim 7 contains a similar limitation. Humason does not teach these features. Humason teaches a tool with three different valves, stacked one upon another. There simply is no "opposite solid lower end" in any of the three subassemblies. The lowermost section (Figure 3) is open to fluid flow. This is true because Humason has its three valves integrally operating with the sucker rod pump. If Humason had an "opposite solid lower end," wellbore fluids would have no way to enter the pump assembly – and the pump would not operate at all.

The dependent claims will now be addressed. Claims 2, 7, 22 and 26 specifically require the body to have a maximum diameter smaller than the internal diameter of the production tube. This is simply not true for Humason. See Figure 1.

Claims 4, 10, 22 and 28 require a plurality of "radically disposed passages." Humason does not teach this feature. See Figure 1, element 40, which are diagonally oriented passageways.

12. The Examiner rejected Claims 1-4, 6, 21-28 under 35 USC Section 102(b) as being anticipated by Morris et al. First, each of independent claims 1, 21, and 25 will be differentiated from Morris et al.

Independent Claim 1 is patentably distinct from the Morris et al. reference for a number of reasons. First, the claim specifically requires that the

generally cylindrical body be "concentrically in line with a sucker rod string." The claim further requires that the general cylindrical body be "disposed generally concentrically within a production tube string." Additionally, the claim requires that the generally cylindrical body be used for "distributing well treatment fluid from the sucker rod string and into the production tube string." Still further, the claim requires that the portion of the sucker rod string which is disposed above the generally cylindrical body be "hollow." The claim specifically requires that the body have an axially fluid entrance passage for "accepting treatment fluid from the sucker rod portion disposed thereabove." Additionally, Claim 1 requires that the general cylindrical body have an axial fluid entrance passage at one end and it have an "opposite solid lower end."

None of these features are taught or suggested by the Morris et al. reference. Morris does not utilize a sucker rod string to supply treatment fluid to the tool. Furthermore, Morris does not fairly teach or suggest any utilization of a sucker rod string whatsoever. In fact, the utilization of the tool depicted and described in Morris in a wellbore would **preclude the utilization of a sucker rod string** as the tool is suspended within the production tubing string through a coiled tubing string. Claim 1 specifically requires an attachment means which is "disposed upon said upper end and said lower end of said body, for attaching said body to a sucker rod string." Accordingly, it is clear that claim 1 specifically requires that the generally cylindrical body be interposed between tubular members which make up a sucker rod string. This is not taught or suggested by Morris et al.

Independent Claim 21 is directed to an alternative embodiment of the present invention which does not utilize a sucker rod string to administer treatment fluid to the tool. Instead, independent claim 21 merely requires

that the tool be attached to a "treatment fluid string." The body of the tool includes an upper end having an axial fluid entrance passage for accepting treatment fluid from the treatment fluid string which is disposed thereabove. The body further includes at least one treatment fluid distribution passage which extends outwardly from the body. A valve is disposed within the body. The valve includes an inlet end communicating with the fluid entrance passage and an opposite outlet end communicating with the fluid distribution passage. Attachment means are required for attaching the body to the treatment fluid string. Independent claim 1 specially differs from Morris et al. in that it further requires that "said generally cylindrical body operates to continuously supply well treatment fluid while the well remains in continuous production." This feature is not taught or suggested by Morris et al. Morris et al. is clearly directed to a tool which is only temporarily disposed within a wellbore to provide a well treatment. Morris et al. does not teach a tool which may be permanently installed in a wellbore to "continuously supply well treatment fluid" while the well remains in continuous production. In fact, it is fairly clear that utilization of the Morris et al. tool may require that the well be "killed." This would be consistent with the normal treatment operation utilizing a coiled tubing string.

Independent claim 25 is relatively similar in scope to independent claim 21 and also specifically requires that the well treatment tool operate to "continuously supply well treatment fluid while the well remain in continuous production."

13. The Examiner rejects claims 6 and 12 under 35 USC Section 103(a) as being unpatentable over Humason. Specially, the Examiner contends that, while Humason does not teach having internal threads on the upper and lower end of the well treatment tool, it would have been considered obvious

to one of ordinary skill in the art to modify Humason to include the internal threads. The Examiner contends that this is a mere design choice. Applicant traverses this conclusion. Humason teaches a system in which a plurality of valves are stacked within a relatively complex housing which allows for the normal operations of a reciprocating pump. The invention of Humason is that gas is injected into the pump in order to provide an artificial lift. All of the valves of Humason are integrally contained within three separate subassemblies which are mated together at the bottom of a wellbore.

The present invention is not the least bit concerned with providing artificial lift for wellbore fluids. Instead, it is directed solely to supplying treatment fluids to a wellbore to prevent paraffin and other build up within the wellbore production tubing string and the like. Consequently, the treatment tool of the present invention may be located at any wellbore position proximate the bottom of the wellbore. The operator may select a particular location he or she wishes to place the well treatment of the present invention. Since the well treatment tool of the present invention is threaded in the manner specified, it may be interposed between any two segments of sucker rod string. It need not be located in a complex sucker rod pump assembly, such as is taught or suggested by the Humason reference. Accordingly, Applicant contends that the features of claims 6 and 12 are not mere design choices, and instead offer significant advantages for the present invention.

14. The Examiner further rejects claims 13-19 and 29-33 under 35 USC Section 103(a) as being unpatentable over Humason in view of Applicants admission of Column 1, line 54, of USPN 5,924,490. To begin with, Applicant traverses the Examiner's conclusion that the text found at USPN 5,924,490 Column 1, commencing at line 54 constitutes an admission which would render independent claims 13 or 29 not patentable over the

prior art. The text found at Column 1 merely identifies the problem of paraffin build up in oil processing and storage system after it leaves the well. The primary and intended purpose of the present invention is to treat an oil and gas well in a manner which reduces the build up of foreign matter, such as paraffin, by continuously supplying well treatment fluid from either a sucker rod string (as in claim 13), or through a treatment fluid string which is disposed above a tool (such as in claim 29) which need not be a sucker rod string and which may be a alternative string such as a coil tubing string.

Independent claims 13 and 29 differ significantly from the Humason reference. Applicant will first examine claim 13, and then claim 29. Independent claim 13 are steps to a method of treating a producing well. The preamble requires that a production tubing string be provided and that a hollow length of sucker rod string be disposed generally concentrically within the production tube string. The preamble requires that the production tube string have a production fluid flowing upwardly therethrough to an initial treatment and storage system.

Element 13(a) requires that the well treatment tool have an axial fluid entrance passage for "accepting well treatment fluid from the sucker rod portion disposed thereabove." Humason does not remotely teach or suggest the application of well treatment fluid through the mechanism described therein. Instead, Humason is concerned solely with the introduction of a gas which is utilized to provide artificial lift for the wellbore when the sucker rod pump is no longer able to pump efficiently. There is no mention whatsoever in Humason about treating the wellbore with any type of well treatment fluid.

Element 13(b) requires installing the tool concentrically in line in the sucker rod string at a predetermined depth in the well, with the fluid entrance passage communicating with the interior of the hollow sucker rod string. Humason teaches a system which does not allow for the placement of the upper valve in any position other than as part of a relatively large three piece subassembly maintained at the lowermost portion of the well and which operates as a sucker rod actuated downhole pump. In the present invention, the tool may be located at any position within the sucker rod string and is not integrally part of the downhole sucker rod actuated pump.

Element 13(c) requires dispensing a well treatment fluid under pressure downwardly from the surface through the sucker rod string to the well treatment tool. This is not remotely taught or suggested by Humason since Humason merely teaches the injection of gas in order to aid in the lifting of wellbore fluids. Humason is an artificial lift technology, not a well treatment technology.

Element 13(d) requires distributing the well treatment fluid from the treatment fluid distribution passage of the well treatment tool into the production tubing string. Humason does not teach the application of well treatment fluid to any part of the wellbore or production tubing string.

Element 13(e) requires flushing the well treatment fluid upwardly with production fluid, through the production tubing string and into the initial treatment and storage system. This is also not remotely taught or suggested by Humason. As Humason is an artificial lift technology, the pressurized gas utilized to aid in lifting of wellbore fluids may be vented to the atmosphere upon reaching the surface, or it may be pumped into some gas storage container. However, it is highly unlikely that the gas utilized in Humason to

aid in the lifting of wellbore fluids is actually flushed into the initial treatment and storage system. Once the wellbore fluids are lifted to the surface, it is unlikely that they are needed to move the wellbore fluids. At the surface location, normal surface pumps may be utilized to pump the fluid into the treatment and storage system. It is unlikely that well operators would want high pressured gas utilized for lifting to be passed into the initial treatment and storage system. This could pose safety risks, and could cause mechanical problems.

Independent claim 29 is similar in scope to independent claim 13. Independent claim 29 additionally further requires the "performing said steps of dispensing, and flushing, while said well remains in continuous production."

15. The examiner rejects claims 20 and 34 under 35 USC Section 103(a) as being obvious in view of Humason, Applicant supposed admission, and Morris et al. In this rejection, the examiner essentially combines Humason and Morris et al. Applicant traverses this rejection. There is nothing in or about either the Humason or the Morris et al. references which would teach or suggest the combination of references suggested by the examiner. Humason is directed solely to a gas-assisted artificial lift technology. While it does utilize the sucker rod string to supply pressurized gas, Humason is silent altogether about any application of the tool for well treatment purposes. In contrast, Morris et al. is directed to a tubing-conveyed tool which is utilized for well treatment, but which is not permanently installed in the well in order to continuously treat the well during production. Morris et al. is likely a tool utilized for temporary location within the well and utilization during temporary well treatment operations. There is nothing in or about the Morris et al. reference which would teach or suggest a permanent installation

of a tool in a producing well in order to continuously treat the well during production. While the Examiner contends that it would be obvious to modify Humason by having a treatment fluid be a paraffin solvent and the production fluid be oil with the paraffin component, there is no text whatsoever within Humason which suggests any such modification. Furthermore, Humason does not even acknowledge the problem of paraffin build up within the well and is not the least bit concerned with or directed towards the solution of this type of problem.

16. The Examiner rejects claims 29 through 34 under 35 USC Section 103(a) as being obvious in view of Morris et al. and the purported admission of applicant. Applicant traverses the rejection. As amended, claim 29 specifically requires the following in new element f:

“(f) performing said steps of dispensing, distributing, and flushing while said well remains in continuous production.”

17. The Examiner rejects claims 35-42 under 35 USC Section 103(a) as being unpatentable over Humason in view of Sonderberg. Applicant traverses this rejection. Humason does not disclose the present invention as it is directed to an artificial technology. Humason is not the least bit concerned with the application of well treatment fluid to a wellbore. While Sonderberg does teach a treatment fluid supply tank, a treatment fluid line connecting to the supply tank, and a pump coupled to the treatment fluid line, it does not teach the present invention. Nor can it be fairly combined with Humason. As discussed above, since Humason is directed to an artificial lift technology, it is unclear what happens to the pressurized gas once it reaches the wellbore surface. It is unlikely that a wellbore operator would want to inject the pressurized gas into his separation/storage equipment. This could cause

safety risks and it could cause mechanical problems. It is more likely that the pressurized gas of Humason is vented to atmosphere upon reaching the earth's surface. There is no reason that an operator would want to push the pressurized gas into his separation/storage equipment which is needed to store oil, and which is not likely suitable for receiving and maintaining high pressure gas. As stated above, a discussion of the Sonderberg specifically requires that treatment fluid be passed down the treatment fluid sting. Sonderberg does not teach or suggest the utilization of a sucker rod string or any other string to supply treatment fluid to a producing well. It is believed that Sonderberg specifically thus requires that production be stopped during the time that solvents or other fluids are being forced down the production tubing string.

In contrast, independent claim 35 specifically requires in element (b) at least one treatment fluid line defining a treatment delivery fluid pathway which is coupled to a tank. A treatment fluid pump is coupled to the at least one treatment fluid line and the tank. A wellbore fluid string is required by element (d) to extend downward into the wellbore a predetermined distance and include a central bore which is in fluid communication with the tank, the at least one fluid treatment line, and the treatment fluid pump. The well fluid string operates for "receiving and delivering well treatment fluid to a subsurface location."

Element (e) requires a well treatment tool which is coupled to the wellbore fluid string for receiving the well treatment fluid and delivering it into a particular portion of the wellbore. In accordance with element (f), the treatment tool includes a tool body, at least one outlet, and a valve. The valve is positioned between an inlet and an outlet. It operates to regulate the delivery of well treatment fluid into the wellbore by checking the flow of well

treatment fluid until a pressure of the wellbore treatment fluid exceeds a predetermined pressure level. It then operates for "relating wellbore treatment fluid when said pressure of said wellbore treatment fluid exceeds said pressure level."

Element (g) requires that the treatment fluid pump continually supply and pressurize the well treatment fluid into the wellbore fluid string and the treatment tool. Element (f) requires that the treatment tool intermittently supply wellbore treatment fluid into the wellbore while the wellbore remains in continuous production.

These elements are simply not taught or suggested by Humason and/or Sonderberg. Humason is directed to an artificial lift technology. It is not the least concerned with treatment of wellbores with a treatment fluid. Sonderberg teaches a treatment system. However, this treatment system does not have an independent system for delivering the wellbore treatment fluid to a subsurface location. Instead, the production tubing is utilized as a path for the treatment fluid. As a consequence, the well is likely killed during treatment operation. The present invention is advantageous over Sonderberg in that the treatment fluid pump continually supplies and pressurizes the well treatment fluid into the wellbore fluid string and the treatment tool. When a predetermined pressure level is exceeded, wellbore treatment fluid is released into the wellbore. This allows the treatment tool to intermittently supply wellbore treatment fluid into the wellbore while the well remains in continuous production.

16. The Examiner rejects Claims 35-48 and 40-42 under 35 USC Section 103(a) as being obvious in view of Morris et al. and Sonderberg.

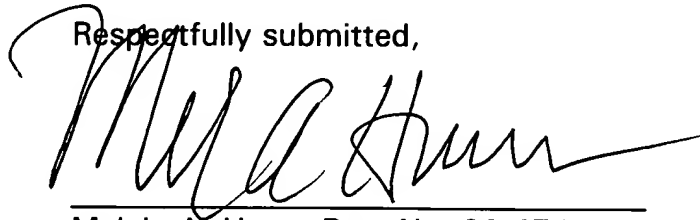
claimed." Then the Examiner proceeds to combine Morris et al. with Sonderberg. This combination is not taught or suggested by either Morris et al. or Sonderberg. As discussed above in detail, Morris et al. discloses a temporary well treatment system which utilizes a coiled tubing hose to deliver a valve assembly to a wellbore location. Treatment fluid is applied (probably in relatively large amounts) when the valving bias is overcome by the treatment fluid which is being pumped down the coiled tubing string. Morris et al. does not teach or suggest a system which may be utilized to continuously treat a wellbore while the wellbore remains in production. This is not a minor detail since killing a well can sometimes adversely affect the performance of the well. Additionally, there is lost production and lost income associated with "down time" for a pumping well. The treatment of Morris et al. is not the least bit useful in a producing well for continuously treating the well. It is an intermittent, temporary system which is advanced into the wellbore for treatment and immediately pulled from the wellbore. In contrast, Sonderberg teaches a treatment system which utilizes the annular space of the production tubing to administer treatment fluids to a wellbore. As stated in the description of the prior art of the present application, Sonderberg would likely require the well to be killed. Essentially, there is no way to combine Morris et al. and Sonderberg in a manner which would allow for the continuous treatment of a wellbore during continuous operation.

17. In view of the foregoing remarks and observations, Applicant respectfully requests allowance of the pending claims.

No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that are required, or credit any overpayments, to Deposit Account No. **50-1060**.

25 July 2004
Date

Respectfully submitted,



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